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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,650	09/28/2001	Kevin M. Jones	1662-39400 JMH (P01-3789)	5227

22879 7590 05/04/2005

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EXAMINER	
NGUYEN, MINH CHAU	

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,650	JONES ET AL.	
	Examiner	Art Unit	
	MINH-CHAU N. NGUYEN	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: This application is related to co-pending patent application Serial No.----- (Attorney Docket No. 1662-39300), titled "Intelligent Power Management for a Rack of Server". This application is also related to co-pending application Serial No.----- (Attorney Docket No. 1662-39100) titled "Redundant Data and Power Infrastructure for Modular Server Components in a Rack (page 1 and 5). The current state of this application, reflecting the status of present pendency, (ex. abandonment or patent maturity), including associated patent numbers, should be amended into the specification.

   Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Regarding claims 1 and 20, the phrase "substantially simultaneously across the communication bus" is unclear and vague. It is not clearly understood than meaning of "across the communication bus" as used within the claim. The examiner will

interpret "substantially simultaneously across the communication bus" to mean "across the communication bus".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1,5-6,8-9,13-14,16-17,20,22-23,28-29,31-32,41-42,46-47,49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. (Cromer) (US 6,282,643 B1) and Brodie et al. (Brodie) (US 2001/0052020 A1).

5. Regarding claim 1, Cromer teaches a method of flashing an image to a plurality of electrically erasable programmable read only memories (EEPROMS) across a communication bus, the method comprising:

compressing the image to create a compressed image (Col. 7, L. 10-22);

flashing the image onto an EEPROM (Col. 1, L. 39-56; and Col. 5, L. 59- Col. 6, L. 6; and Col. 7, L. 10-22).

Cromer teaches transferring the compressed image to the local computer system's EEPROM across the communication bus (Col. 5, L. 29-35; and Col. 7, L. 10-35; Col. 9, L. 56 – Col. 10, L. 22).

Cromer fails to teach plurality of computer systems have plurality of EEPROMS, and broadcasting the image to plurality of computer systems. However, Brodie, in the

same field of endeavor having closely related objectivity, teaches plurality of computer systems, and broadcasting the image to plurality of computer systems (ex. plurality of computer systems have plurality of EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems, and broadcasting the image to many computer systems, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

6. Regarding claim 5, Cromer teaches sending the compressed image in a plurality of broadcast packets (Col. 5, L. 29-51; and Col. 7, L. 10-22; and Col. 9, L. 56 – Col. 10, L. 22);

Cromer also teaches selecting a series of packets from the compressed image of the EEPROM and transferring the packets (Col. 5, L. 29-51; and Col. 9, L. 56 – Col. 10, L. 22). Cromer fails to teach selecting a series of missing packets and broadcasting them. However, Brodie, in the same field of endeavor having closely related objectivity, teaches selecting a series of missing packets and broadcasting the missing packets (ex. the network is losing packets and the server is required to retransmit data blocks which

can be interpreted as the network is losing packets, the server would select the losing packets before retransmit them) (page 2, paragraph [0014], [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of selecting a series of missing packets and broadcasting the missing packets, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

7. Regarding claim 6, Cromer teaches flashing the image onto an EEPROM (Col. 1, L. 39-56; and Col. 5, L. 59- Col. 6, L. 6); and

Cromer also teaches refraining from flashing a remaining EEPROM if any of the plurality of EEPROMS fail to properly flash (Col. 8, L. 62 – Col. 9, L. 37).

Cromer fails to teach plurality of EEPROMS in plurality of computer systems. However, Brodie, in the same field of endeavor having closely related objectivity, teaches plurality of computer systems (ex. plurality of computer systems have plurality of EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is

running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

8. Regarding claim 8, Cromer teaches a system comprising:

a communication bus (Col. 5, L. 28-35);

a first computer system coupled to the communication bus (ex. remote computer system 34) (Col. 5, L. 28-35);

a computer system coupled to the first computer system across the communication bus, each of the plurality of computer systems having an electrically erasable programmable read only memory (EEPROM) device having an image thereon (ex. computer system 10) (Col. 1, L. 39-56; and Col. 5, L. 28-35);

wherein the first computer system is adapted to simultaneously transfer a new EEPROM image to a computer system across the communication bus, the new EEPROM image to be placed in the EEPROM device of the computer system (Col. 5, L. 28-35; and Col. 9, L. 56 – Col. 10, L. 22).

Cromer fails to teach plurality of computer systems couple to the first computer system, and the first computer system broadcasts the image to each of the plurality of computer systems. However, Brodie, in the same field of endeavor having closely related objectivity, teaches plurality of computer systems couple to the first computer system, and the first computer system broadcasts the image to each of the plurality of

computer systems (ex. many computer systems have EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems couple to the first computer system, and the first computer system broadcasts the image to each of the plurality of computer systems, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

9. Regarding claim 9, Cromer and Brodie disclose the invention substantially as claimed. Cromer teaches the first computer system is adapted to compress the new EEPROM image (Col. 7, L. 10-22).

10. Regarding claim 13, Cromer teaches:

a microprocessor coupled to the EEPROM device (figure 3; and Col. 2, L. 46-67; and Col. 4, L. 30-67); and

a random access memory array (RAM) coupled to the microprocessors (figure 3; and Col. 2, L. 46-67; and Col. 4, L. 30-67);

wherein the microprocessor is adapted to receive the new EEPROM image transfer across the communication bus and store the new EEPROM image in the RAM (Col. 2, L. 46-67; and Col. 5, L. 58 – Col. 6, L. 6); and

wherein the microprocessor is further adapted to flash the new EEPROM image to the EEPROM after the entire new EEPROM image is stored in the RAM (Col. 5, L. 58-Col. 6, L. 6; and L. 55-67).

Cromer fails to teach broadcast the image. However, Brodie, in the same field of endeavor having closely related objectivity, teaches broadcast the image (ex. many computer systems have EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of broadcast the image, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

11. Regarding claim 20, Cromer teaches a method of flashing a single image to a plurality of electrically erasable programmable read only memories (EEPROMS) across a communication bus, the method comprising:

sending the single image across the communication bus to an EBPROM (Col. 5, L. 29-35; and Col. 9, L. 56 – Col. 10, L. 22).; and

flashing the image onto the EEPROM (Col. 1, L. 39-56; and Col. 5, L. 59- Col. 6, L. 6).

Cromer fails to teach plurality of computer systems have plurality of EEPROMS. However, Brodie, in the same field of endeavor having closely related objectivity, teaches the remote computer system sends the image to plurality of computer systems (ex. plurality of computer systems have same plurality of EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems couple to the remote computer system, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

12. Regarding claim 22, Cromer and Brodie disclose the invention substantially as claimed. Cromer teaches compressing the single image to create a compressed single image (Col. 7, L. 10-22).

13. Regarding claim 23, Cromer teaches sending the compressed single image across the communication bus to an EEPROM substantially simultaneously (Col. 5, L. 29-35; and Col. 7, L. 10-35; Col. 9, L. 56 – Col. 10, L. 22).

Cromer fails to teach plurality of computer systems have plurality of EEPROMS, and sending the image to plurality of computer systems. However, Brodie, in the same field of endeavor having closely related objectivity, teaches plurality of computer systems, and sending the image to plurality of computer systems (ex. plurality of computer systems have plurality of EEPROMS) (page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems, and sending the image to many computer systems, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

14. Regarding claim 31, Cromer teaches a rack mounted computer system comprising:

a first chassis having a server mounted therein (ex. computer system 10) (Col. 3, L. 50-67);

a second chassis having a sever mounted therein (ex. computer system 34) (Col. 3, L. 50-67; and Col. 6, L. 23-35);

a central power supply system coupled to the first and second chassis and supplying power thereto (ex. in figure 1, the computer 10 communicates with the computer 43, and each of them has a power supply. Therefore, it can be interpreted as

having a central power supply system to couple with their supplying powers) (Col. 4, L. 4-10; and figure 1);

a first chassis communication module coupled to the server in the first chassis by way of a first communication bus (ex. communication bus is a host bus) (Col. 4, L. 4-50);

a second chassis communication module coupled to the server in the second chassis by way of a second commtmication bus (ex. because the server 34 has components and attributes like the computer 10, thus it also has communication bus is another host bus) (Col. 3, L. 50-67; and Col. 6, L. 23-35);

a third communication bus coupling the first and second chassis communication module (ex. the third communication bus is PCI bus) (Col. 4, L. 26-60; and Col. 5, L. 28-35);

wherein the first chassis communication module comprises:

a microcontroller coupled to the first communication bus and the third communication bus (ex. the first communication bus is the host bus/ local bus and the third communication bus is the IO bus/ PCI bus) (Col. 2, L. 24-45; and Col. 4, L. 26-60; and Col. 5, L. 28-35); and

an electrically erasable programmable read only memory (EEPROM) coupled to the microcontroller and adapted to store software images executed by the microcontroller (figure 3; and Col. 2, L. 46-67; and Col. 4, L. 30-67; and Col. 6, L. 55-67; and Col. 7, L. 26-35; and Col. 9, L. 56-Col. 10, L. 22);

wherein the second chassis commllnication module comprises:

a microcontroller coupled to the second communication bus and the third communication bus (ex. the first communication bus is the host bus/ local bus and the third communication bus is the IO bus/ PCI bus) (Col. 2, L. 24-45; and Col. 4, L. 26-60; and Col. 5, L. 28-35); and

an EEPROM coupled to the microcontroller adapted to store software images executed by the microcontroller (figure 3; and Col. 2, L. 46-67; and Col. 4, L. 30-67; and Col. 6, L. 55-67; and Col. 7, L. 26-35; and Col. 9, L. 56-Col. 10, L. 22);

wherein a server the first or second chassis is adapted transfer simultaneously a new software image to be flashed to an EEPROM in the first or second chassis communication module (Col. 5, L. 29-35; and Col. 7, L. 10-35; Col. 9, L. 56 – Col. 10, L. 22).

Cromer fails to teach plurality of computer systems (or servers) have plurality of EEPROMS in the first and second chassis, and broadcasting the image to plurality of computer systems. However, Brodie, in the same field of endeavor having closely related objectivity, teaches plurality of computer systems, and broadcasting the image to plurality of computer systems (ex. plurality of computer systems have plurality of EEPROMS) (page 1, paragraph [0002]; and page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems, and broadcasting the image to many computer systems, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing

"a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

15. Regarding claim 32, Cromer teaches the server compresses the new software image prior to transferring the new software image (Col. 7, L. 10-22).

Cromer fails to teach plurality of computer systems (or servers), and broadcasting the image. However, Brodie, in the same field of endeavor having closely related objectivity, teaches plurality of computer systems, and broadcasting the image (page 1, paragraph [0002]; and page 2, paragraph [0018], [0021]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Brodie's teachings of plurality of computer systems, and broadcasting the image, with the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running, for the purpose of providing "a system for the control the network which improves the data transfer rate throughout the network and overcomes unnecessary delays" as stated by Brodie in (page 3, paragraph [0029]).

16. Regarding claim 49, Cromer and Brodie disclose the invention substantially as claimed. Cromer teaches the digital computing means further comprises a microcontroller (Col. 1, L. 15-33; and Col. 4, L. 26-60).

17. Regarding claim 50, Cromer and Brodie disclose the invention substantially as claimed. Cromer teaches the memory means further comprises a random access memory array (ex. Flash memory is a random access memory array) (Col. 1, L. 40-57; and Col. 4, L. 26-67).

18. Regarding claim 51, Cromer and Brodie disclose the invention substantially as claimed. Cromer teaches the communication means further comprises a serial communication bus (Col. 2, L. 24-67; and Col. 4, L. 26-60; and Col. 5, L. 28-35).

19. Claims 14, 17 are corresponding claim 9. Therefore, they are rejected under the same rationale.

20. Claim 16 is a corresponding claim 13. Therefore, it is rejected under the same rationale.

21. Claims 28-29 are corresponding claims 5-6. Therefore, they are rejected under the same rationale.

22. Claims 41-42 and 46-47 are corresponding claims 8-9 and 13-14. Therefore, they are rejected under the same rationale.

23. Claims 2-4,7,10-12,15,18-19,21,24-27,30,33-36,38,43-45,48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer in view of Brodie as applied to claims 1,8,20,31 and 41 above, and further in view of Herbert, Jr. (Herbert) (US 6,741,749 B2).

24. Regarding claim 2, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image that is placed on the EEPROM (Col. 6, L. 55-67; and Col. 7, L. 10-22; and Col. 9, L. 56-Col. 10, L. 22). Moreover, Brodie teaches plurality of computer systems (ex. plurality of computer systems have plurality of EEPROMS) (page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach creating an initial frequency table of an initial image placed on the EEPROMS, and using the initial frequency table to create the compressed image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches creating an initial frequency table of an initial image placed on the EEPROM, and using the initial frequency table to create the compressed image (ex. the look-up table 62 is the initial frequency table) (Col. 6, L. 40-65; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of creating an initial frequency table of an initial image placed on the EEPROM, and using the initial frequency table to create the compressed image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

25. Regarding claim 3, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches the compressed image (Col. 7, L. 10-22). Moreover, Brodie teaches broadcasting to plurality computer systems (page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach refraining from broadcasting the initial frequency table along with the compressed image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches refraining from broadcasting the initial frequency table along with the compressed image (ex. the method and a representation of the tree structure is known and stored in both first and second computing systems. Therefore, it can be interpreted as the first system transmits the compressed image without including the initial frequency table) (Col. 3, L. 38-45; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10; and Col. 15, L. 16-36).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of refraining from broadcasting the initial frequency table along with the compressed image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

26. Regarding claim 4, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image (Col. 7, L. 10-22).

Cromer and Brodie fail to teach Huffman encoding. However, Herbert, in the same field of endeavor having closely related objectivity, teaches Huffman encoding (Col. 9, L. 10-31; and Col. 13, L. 34-63).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of Huffman encoding, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

27. Regarding claim 7, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image and transferring the image across a communication bus (Col. 5, L. 28-35; and Col. 7, L. 10-22). Moreover, Brodie teaches broadcasting the image to plurality computer systems (page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach a low bandwidth communication bus. However, Herbert, in the same field of endeavor having closely related objectivity, teaches a low bandwidth communication bus (Col. 2, L. 45-55; and Col. 13, L. 35-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of a low bandwidth communication bus, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store and the bandwidth required to transmit the image is reduced by compressing.

28. Regarding claim 10, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches first computer system creates the compressed new EEPROM image prior to its transfer (Col. 7, L. 10-22, Col. 9, L. 56-Col. 10, L. 22).

Cromer and Brodie fail to teach the first computer system is adapted to Huffman encode the image, and wherein the first computer system is further adapted to not send the frequency table used for Huffman encoding along with the image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the first computer system is adapted to Huffman encode the image, and wherein the first computer system is further adapted to not send the frequency table used for Huffman encoding along with the image (ex. the method and a representation of the tree structure is known and stored in both first and second computing systems. Therefore, it can be interpreted as the first system transmits the compressed image without including

the initial frequency table) (Col. 3, L. 38-45; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10; and Col. 13, L. 34-63; and Col. 15, L. 16-36).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the first computer system is adapted to Huffman encode the image, and wherein the first computer system is further adapted to not send the frequency table used for Huffman encoding along with the image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

29. Regarding claim 11, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image (Col. 7, L. 10-22; and Col. 9, L. 56-Col. 10, L. 22).

Cromer and Brodie fail to teach the first computer system uses a predefined frequency table to encode each new EEPROM image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the first computer system uses a predefined frequency table to encode each image (ex. the look-up table 62 is the predefined frequency table) (Col. 6, L. 40-65; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the first computer

system uses a predefined frequency table to encode each image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

30. Regarding claim 12, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image (Col. 7, L. 10-22; and Col. 9, L. 56-Col. 10, L. 22).

Cromer and Brodie fail to teach the plurality of computer systems each uses a predefined frequency table to decode each new EEPROM image prior to flashing. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the plurality of computer systems each uses a predefined frequency table to decode each image prior to flashing (Col. 13, L. 55-64; and Col. 14, L. 50-58; and Col. 15, L. 15-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the plurality of computer systems each uses a predefined frequency table to decode each image prior to flashing, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

31. Regarding claim 21, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches transferring the image across a communication bus (Col. 5, L. 28-35; and Col. 9, L. 56-Col. 10, L. 22). Moreover, Brodie teaches broadcasting the image to plurality computer systems (page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach a low bandwidth communication bus. However, Herbert, in the same field of endeavor having closely related objectivity, teaches a low bandwidth communication bus (Col. 2, L. 45-55; and Col. 13, L. 35-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of a low bandwidth communication bus, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store and the bandwidth required to transmit the image is reduced by compressing.

32. Regarding claim 33, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches the server compresses new software image prior to its transfer (Col. 7, L. 10-22, Col. 9, L. 56-Col. 10, L. 22). Moreover, Brodie teaches plurality of servers (page 1, paragraph [0002]; and [page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach the server of the plurality of servers is configured to use Huffman encoding to compress the new software image, and wherein the server is configured to not send the frequency table used for Huffman encoding along with the compressed image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the server of the plurality of servers is configured to use Huffman encoding to compress the new image, and wherein the server is configured to not send the frequency table used for Huffman encoding along with the compressed image (ex. the method and a representation of the tree structure is known and stored in both first and second computing systems. Therefore, it can be interpreted as the first system transmits the compressed image without including the initial frequency table) (Col. 3, L. 38-45; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10; and Col. 13, L. 34-63; and Col. 15, L. 16-36).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the server of the plurality of servers is configured to use Huffman encoding to compress the new image, and wherein the server is configured to not send the frequency table used for Huffman encoding along with the compressed image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

33. Regarding claim 34, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches the server compresses new software image (Col. 7, L. 10-22, Col. 9, L. 56-Col. 10, L. 22). Moreover, Brodie teaches plurality of servers (page 1, paragraph [0002]; and [page 2, paragraph [0018], [0021]).

Cromer and Brodie fail to teach the server of the plurality of servers is further configured to perform the Huffman encoding using a frequency table that is not specifically indicative of the frequency of symbols in the new image. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the server of the plurality of servers is further configured to perform the Huffman encoding using a frequency table that is not specifically indicative of the frequency of symbols in the new image (Col. 3, L. 38-45; and Col. 9, L. 10-31; and Col. 11, L. 17-Col. 12, L. 10; and Col. 13, L. 34-63; and Col. 14, L. 50-58; and Col. 15, L. 15-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the server of the plurality of servers is further configured to perform the Huffman encoding using a frequency table that is not specifically indicative of the frequency of symbols in the new image, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

34. Regarding claim 35, Cromer and Brodie are relied upon for the disclosure set forth in the previous rejection. Cromer teaches creating the compressed image (Col. 7, L. 10-22; and Col. 9, L. 56-Col. 10, L. 22).

Cromer and Brodie fail to teach the microcontroller in the first or second chassis communication module is adapted to use a predefined frequency table to decompress the new software image prior to flashing. However, Herbert, in the same field of endeavor having closely related objectivity, teaches the microcontroller in the first or second chassis communication module is adapted to use a predefined frequency table to decompress the new image prior to flashing (Col. 2, L. 25-35; and Col. 13, L. 55-64; and Col. 14, L. 50-58; and Col. 15, L. 15-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of the microcontroller in the first or second chassis communication module is adapted to use a predefined frequency table to decompress the new image prior to flashing, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie, for the purpose of providing the storage capacity required to store the image is reduced by compressing.

35. Claims 15 and 18 are corresponding claim 12. Therefore, they are rejected under the same rationale.

36. Claims 19 and 24 are corresponding claim 7. Therefore, they are rejected under the same rationale.

37. Claims 25-27 and 30 are corresponding claims 2-4 and 7. Therefore, they are rejected under the same rationale.

38. Claims 36, 38 are corresponding claim 19. Therefore, they are rejected under the same rationale.

39. Claims 43-45 and 48 are corresponding claims 10-12 and 15. Therefore, they are rejected under the same rationale.

40. Claims 37,39-40,52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer-Brodie in view of Herbert as applied to claims 31 and 41 above, and further in view of Garcia et al. (Garcia) (US 6,728,601 B2).

41. Regarding claim 37, Cromer-Brodie and Herbert are relied upon for the disclosure set forth in the previous rejection. Herbert teaches a low bandwidth communication bus (Col. 2, L. 45-55; and Col. 13, L. 35-40).

Cromer-Brodie and Herbert fail to teach the low bandwidth communication bus is an I2C serial bus. However, Garcia, in the same field of endeavor, teaches an I2C serial bus (Col. 5, L. 5-15).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of an I2C serial bus, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control

system for network servers of Brodie and the system, device, computer program product, and method for representing a plurality of electronic ink data points of Herbert, for the purpose of providing the bandwidth required to transmit the image is reduced.

42. Regarding claim 40, Cromer-Brodie and Herbert are relied upon for the disclosure set forth in the previous rejection. Herbert teaches a low bandwidth communication bus (Col. 2, L. 45-55; and Col. 13, L. 35-40).

Cromer-Brodie and Herbert fail to teach the low bandwidth communication bus is an RS-485 compliant bus. However, Garcia, in the same field of endeavor, teaches an RS-485 compliant bus (Col. 5, L. 5-15).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Herbert's teachings of an RS-485 compliant bus, in the teachings of Cromer in the computer system having flash memory BIOS which can be accessed remotely while protected mode operating system is running with the control system for network servers of Brodie and the system, device, computer program product, and method for representing a plurality of electronic ink data points of Herbert, for the purpose of providing the bandwidth required to transmit the image is reduced.

43. Claim 39 is a corresponding claim 37. Therefore, it is rejected under the same rationale.

44. Claim 52 is a corresponding claim 37. Therefore, it is rejected under the same rationale.

- ❖ The prior arts are not relied on in the rejection:
  - Nakamura et al. (6,134,663)
  - Zimmer (US 6,848,046 B2)
  - Okada et al. (6,167,091)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU N. NGUYEN whose telephone number is (571)272-4242. The examiner can normally be reached on Monday-Friday from 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VALENCIA M. WALLACE can be reached on (571)272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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